

IN THE CLAIMS:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Previously Amended) A method of using an erythropoietin (EPO) peptide for the preparation of epitope-specific anti-EPO antibodies, an epitope being defined as being composed of one or more peptides, or one or more sections of peptide sequences, wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide selected from the group consisting of amino-acid positions 1 to 35 (P4), 84 to 95 (P1/1), 93 to 103 (P5), 110 to 123 (P5/1), 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO, comprising:

(a) immunizing an animal with said peptide; and

(b) isolating said epitope-specific EPO antibodies.

6. (Previously Amended) An antibody directed against an erythropoietin (EPO) peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO.

7. (Previously Amended) The antibody of claim 6 in which the antibody is a monoclonal antibody.

8. (Canceled)

9. (Currently Amended) An anti-idiotypic antibody against the binding region of an ~~EPO-neutralizing antibody as claimed in claim 6.~~ antibody directed against an erythropoietin (EPO) peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO.

10. (Previously Amended) A method of using the antibody as claimed in claim 6 for purifying EPO, an EPO derivative, or an EPO peptide comprising:

- (a) contacting a biological sample with said antibody, wherein said antibody is bound to a carrier material suitable for chromatography;
and
- (b) isolating said EPO, EPO derivative, or EPO peptide.

11. (Currently Amended) A diagnostic aid for the detection of erythropoietin (EPO) containing an antibody as claimed in claim 6 for the detection of EPO directed against an EPO peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected

from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO.

12. (Previously Amended) A diagnostic aid containing an EPO peptide as defined in claim 5 for the detection of anti-EPO antibodies.

13. (Canceled)

14. (Currently Amended) A pharmaceutical composition containing an ~~epitope-specific anti-EPO antibody as claimed in claim 6~~ antibody directed against an erythropoietin (EPO) peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO and a pharmaceutically acceptable excipient.

15. (Previously Amended) A pharmaceutical composition containing an anti-idiotypic antibody as claimed in claim 9 and a pharmaceutically acceptable excipient.

16. (Currently Amended) A diagnostic aid for the detection of neutralizing antibodies or erythropoietin (EPO) receptors, wherein said diagnostic aid contains containing an anti-idiotypic antibody as claimed in claim 9 for the detection of neutralizing antibodies or EPO receptors against the binding region of an antibody directed against an EPO peptide, wherein said antibody neutralizes the biological activity of EPO, and wherein said EPO peptide consists essentially of a peptide of less than the complete erythropoietin protein, said peptide having an amino acid sequence

selected from the group consisting of amino-acid positions 138 to 166 (P2) and 152 to 166 (P2/1) in accordance with the numbering of the amino-acid positions of natural EPO.

17. (Previously Amended) An anti-erythropoietin (EPO) antibody directed against epitopes that bind to the EPO receptor.

18. (Original) An anti-EPO antibody as claimed in claim 17, which neutralizes the biological activity of EPO.

19. (Original) An anti-EPO antibody as claimed in claim 17, which is a monoclonal antibody.

E, 20. (Currently Amended) A diagnostic aid for the detection of erythropoietin (EPO), wherein said diagnostic aid contains ~~containing~~ one or more anti-EPO antibodies ~~as claimed in claim 17 for the detection of EPO~~ directed against epitopes that bind to the EPO receptor.

21. (Currently Amended) A pharmaceutical composition containing one or more anti-EPO antibodies as claimed in claim 17 and a pharmaceutically acceptable excipient.

22. (Currently Amended) A method for purifying EPO, EPO derivatives, or EPO peptides comprising: by using

(a) contacting a sample with one or more anti-EPO antibodies as claimed in claim 17, wherein said antibody or antibodies are bound to a carrier material suitable for chromatography; and

(b) isolating said EPO, EPO derivatives, or EPO peptides.

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23. (Previously Amended) An anti-EPO antibody as claimed in claim 6, which is directed against epitopes which bind to the EPO receptor.

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